

# Fully Featured GPS Speedometer

*with Odometer*

Hummingbird's fully featured GPS Speedometer provides a highly visible and configurable speed and distance readout, independent of the vehicle. No installation other than power provision is required.

Two independent distance readouts as well as speed and other statistics are available.

## Powerful Performance

Designed for harsh automotive environments, the module features a tough fascia with integrated buttons and LCD graphics display. An adjustable screw or suction mount allows for optimum positioning for the operator.

The ability to track 50 satellites simultaneously, enhanced receiver sensitivity and active antenna result in fast time-to-first-velocity-calculation as well as the ability to operate in the harshest RF environments such as canyons and cities. Speed errors will occur in RF blackout zones such as tunnels. Distance lost due to RF blackout is compensated for by adding it to the total distance recorded once satellites become visible again.

Three dimensional velocity calculations are typically accurate to 0.36km/h and are updated 4 times per second. In application measurements of distance have typically resulted in accuracies of better than 0.25% over 1km. For best accuracy, the vehicle should be moving at a speed of greater than 2km/h.

Two trips are displayed simultaneously as well as current speed and the number of satellites currently being used. Trip statistics such as average speed, maximum speed and trip time can be viewed via the integrated menu. The display is highly visible both at night and in sunlight due to the use of an industrially rated, transfective graphics LCD display.

Trip A can be reset by pushing the enter button from the main display. Trip B can be pre-loaded by the user and then password protected along with the integrated setup menu.



*Highly visible readout*

An external antenna is provided, which can be either magnetic mount or bulkhead mount. The bulkhead mount antenna would only be used in permanent installations

## Features

- Simultaneous speed and dual trip display
- 100m precision on both trips
- 10 million-kilometer range on both trips
- Trip Statistics
- 10V to 36V supply voltage
- Adjustable industrial screw-mount or suction windscreen mount
- Highly visible sunlight readable display
- Integrated user interface for customisation
- Speed in Kilometers per Hour, Miles per Hour or Knots. Others available on request.
- Odometer in Kilometers, Miles or Nautical Miles. Others on request.

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Technical Specifications and Ordering Information				
Part number	NEST1000SB	NEST1000SM	NEST1000PB	NEST1000PM
Mounting system	Windscreen suction		Permanent screw mount	
Antenna type	Bulkhead	Magnetic mount	Bulkhead	Magnetic mount
Input voltage	Minimum 10V; maximum 36V			
Power consumption (W)	Maximum 1.8W (110mA @ 12V; 70mA @ 24V)			
Dimensions – display module (mm)	110mm(width), 75mm(height), 25mm(depth)			
Acquisition time, loss of lock	Less than 2s (90% of the time)			
Acquisition time, temp loss of power	Less than 10s (50% of the time), less than 13s (90% of the time)			
Acquisition time, power-up	Less than 38s (50% of the time), less than 42s (90% of the time)			
Resolution	Distance: 1unit (meter, ft), speed: 1unit (km/h, mi/h, knots)			
Distance accuracy	Typical in-application measurements show better than 0.25%			
Update rate	4 times per second (4Hz)			
RF interface	SMA connector supplied on magnetic and bulkhead antenna versions			
Antenna dimensions (mm)	51(l), 42(w), 12(h); cable length minimum 3m			
Cable length	Power cable and external switch provided with 1.5m cable			
Operating temperature	-40°C to 85°C; 5% to 95% relative humidity			
General	50 channel tracking receiver, battery backup 12 days			

